

On the 20th a low in the vicinity of the Virginia Capes was responsible for heavy easterly to southerly winds along the American coast between Charleston and New York, while on the same day a second disturbance was central near latitude 48° N., longitude 37° W.

The western low moved northeastward along the coast and on the 22d was over Newfoundland. The second disturbance moved but little from the 20th to the 21st, but on the 22d surrounded the Azores. On the same date Horta recorded a barometer reading of 29.36 inches, while severe gales were reported from the vicinity, as shown by following storm log:

Italian S. S. *Dante Alighieri*:

Gale began on the 22d, wind SE. Lowest barometer 29.27 inches at 6 a. m. on the 22d, wind S., in latitude $37^{\circ} 44'$ N., longitude $25^{\circ} 44'$ W. End on the 23d, wind W.; highest force of wind 10; shifts SE.—S.

On the 23d and 24th moderate conditions were the rule over the entire ocean, with the exception of a few isolated localities where winds of gale force were encountered.

On the 25th a disturbance of limited extent was central near latitude 42° N., longitude 46° W., and strong northwesterly and northerly gales, accompanied by hail and snow, were reported by vessels in the southerly and westerly quadrants, respectively. This low apparently moved nearly due north and on the 26th was probably a short distance east of Newfoundland, although it was impossible to plot its position on account of lack of observations.

The daily weather map of the 26th showed a marked depression in the Gulf of Mexico that moved rapidly northeastward, being in the vicinity of Hatteras on the 27th, while winds of gale force swept the American coast from the Virginia Capes to the Bahamas.

On the 27th an area of low pressure was central near latitude 43° N., and longitude 35° W., and moderate gales were reported from the region immediately westward of the Azores.

On the 28th a low in the vicinity of the Bermudas was responsible for heavy winds in the southerly and westerly quadrants, and a few vessels in mid-ocean also rendered storm reports.

The British daily weather report for the 29th shows a well-developed depression central near Lerwick, Shetland Islands, and northwesterly winds of gale force were reported by a number of stations in the British Isles, while the few reports received from vessels near the coast indicated moderate weather only.

CYCLONIC DISTURBANCES IN THE SOUTH PACIFIC OCEAN

By ALBERT J. McCURDY, Jr.

Weather reports received from vessels for February, 1924, indicate that stormy conditions prevailed in the South Pacific Ocean in the first and middle decades of the month.

On February 6 and 7 the American S. S. *W. J. Hanna*, Capt. Norman P. Forbes, proceeding from Talara, Peru, to Bahia Blanca, experienced fresh gales with overcast weather and rough seas. Mr. Vincent R. Cage, observer, states that the lowest pressure observed was 29.70 inches (uncorrected), occurring in the afternoon and night of the 6th, in $41^{\circ} 21'$ S., $77^{\circ} 16'$ W. The wind at this time was west, force 7. Similar conditions continued throughout the 7th.

The British S. S. *City of Naples*, Capt. H. Johnson, proceeding from Sydney to Panama, on February 11, while south of Cook Island, encountered a moderate southerly gale with heavy seas. Mr. R. C. Cooper, observer, states that the lowest pressure observed was 29.76 inches (corrected), occurring at 1 a. m. in $33^{\circ} 15'$ S., $158^{\circ} 57'$ W. The wind at this time was SSE., force 7. The gale ended on the 12th; wind S.

On February 19 winds of gale force were experienced by the British S. S. *Tahiti*, Capt. B. M. Aldwell, Wellington toward Sydney. Mr. J. C. Adams, observer, reports rough northeast seas with heavy rain. At 9 p. m., when in $35\frac{1}{2}^{\circ}$ S., $155\frac{1}{2}^{\circ}$ E., the barometric reading was 29.59 inches (corrected). The wind at this time was northerly, force 6, but later shifted to west and increased to a fresh gale at 1 a. m. on the 20th.

551.506 (265.2) —————

NORTH PACIFIC OCEAN

By WILLIS E. HURD

Much stormy weather, with a considerable amount of snowfall, prevailed along the northern trans-Pacific routes during February. Moderate to strong gales occurred daily over some portion of the sea, being most widespread perhaps on the 1st, 2d, 3d, 20th, 25th, 26th, and 28th. The highest force of the wind recorded was 11, whereas in January full hurricane velocities occurred on several occasions.

There is no record at hand of tropical storms in the Far East. In the western coast waters of tropical America the only gales of consequence were such as are typical of the region over and in the neighborhood of the Gulf of Tehuantepec. Here several vessels reported northerly to easterly winds of force 7 to 9 on the 5th, 8th to 10th, 20th and 21st of the month, accompanied by fine, hazy weather, with very little depression of the barometer, and rough seas.

In the Hawaiian region generally brisk trades prevailed. At Honolulu the wind velocities exceeded 25 miles an hour on 10 days, with a maximum velocity of 35 miles from the northeast on the 13th. The prevailing wind was from the east.

The average pressure at Dutch Harbor was 29.53 inches, based on p. m. observations, or 0.03 inch below normal. Such a comparison does not reveal the true pressure conditions at that station, however. Beginning with the 2d the pressure was continuously above normal through the 16th, a period of 15 days wherein the average daily departure was +0.51 inch. From the 17th until the end of the month pressure was continuously below normal, the average daily departure being -0.61 inch. The highest pressure, 30.34 inches, occurred on the 12th and 13th; the lowest, 28.18 inches, on the 25th. Absolute range 2.16 inches. At Midway Island the average pressure (28 days) was 30.08 inches, or 0.08 inch above normal. The highest reading, 30.28 inches, was recorded on the 22d; the lowest, 29.74 inches, on the 17th. At Honolulu the average p. m. pressure was 30.07 inches, or 0.03 inch above normal. The highest reading, 30.23 inches, was recorded on the 25th; the lowest, 29.77 inches, on the 16th.

The alignment of pressure conditions for the ocean as a whole showed the eastern North Pacific high appearing in well-developed form on the first four days of the month. Thereafter until the 20th it was a weaker and more fluctuating area, sometimes cresting over the western portion of the United States or just off the coast, sometimes